LISTING OF CLAIMS

Claims 1-83. (Cancelled)

Claim 84. (Currently Amended) A method for identifying a HER-2 over-expressing mammalian breast tumor that is likely to respond to a HER-2 directed therapy, the method comprising the steps of:

(i) assaying a sample obtained from the mammalian breast tumor to detect a pattern of:

(a) phosphorylation of an S6 ribosomal polypeptide, wherein said detected pattern of phosphorylation of S6 ribosomal polypeptide is determined using an antibody that binds to an epitope comprising a phosphorylated serine residue at position 235 in SEQ ID NO: 2; and

(b) expression of an IGFR-1 (Insulin-like Growth Factor Receptor-1) polypeptide; ~~and optionally~~

~~(c) expression of a NDF (Heregulin) polypeptide; and~~

~~(ii) comparing said pattern to a pattern detected in a sample obtained from a non-tumor tissue or cell sample,~~ wherein increased phosphorylation of S6 ribosomal polypeptide accompanied by decreased expression of IGFR-1 polypeptide ~~a change in the detected pattern~~ identifies said mammalian breast tumor as likely to respond to a HER-2 directed therapy.

Claims 85-110. (Cancelled)

Claim 111. (Previously Presented) The method of claim 84, wherein the HER2-directed therapy comprises rhuMAb HER-2.

Claim 112. (Currently Amended) The method of claim 84, wherein the sample obtained from the mammalian breast tumor is a paraffin-embedded biopsy sample.

Claim 113. (Currently Amended) The method of claim 84, wherein the mammalian breast tumor is identified as overexpressing HER-2 using an antibody that binds HER-2 polypeptide.

Claim 114. (New) The method of claim 84, wherein the mammalian breast tumor is a human breast tumor.

Claim 115. (New) The method of claim 84, further comprising the step of:

(c) expression of a NDF (Heregulin) polypeptide;

wherein increased phosphorylation of S6 ribosomal polypeptide accompanied by decreased expression of IGFR-1 polypeptide and increased expression of NDF identifies said mammalian breast tumor as likely to respond to a HER-2 directed therapy.